



MEGA COLOUR 4000AS  
MEGA COLOUR 4000A  
MEGA COLOUR 7000

PR-4100AS  
PR-4100A  
PR-1700

This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

PR LIGHTING LTD.  
<http://www.pr-lighting.com>

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Please note that as part of our ongoing commitment to continuous product development, specifications are subject to change without notice. Whilst every care is taken in the preparation of this manual we reserve the right to change specifications in the course of product improvement. The publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from them.

Every unit is tested completely and packed properly by the manufacturer. Please make sure the packing and / or the unit are in good condition before installation and use. Should there be any damage caused by transportation, consult your dealer and do not use the unit. Any damage caused by improper use will not be assumed by the manufacturer and / or dealer.

## ACCESSORIES

These items are packed together with the projector:

Name	Quantity	Unit	Remark
Waterproof power female plug	1	Pc	
XLR cable	1	Pc	3-pin plug
G clamps	8	Pcs	
Safety cords	6	Pcs	
This manual	1	Pc	

## SAFE USAGE OF THE PROJECTOR

When unpacking and before disposing of the carton check there is no transportation damage before using the projector. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

The projector is for outdoor use and is splash-proofed, IP55. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust.

The projector is not designed or intended to be mounted directly on to inflammable surfaces.



The projector is only intended for installation, operation and maintenance by qualified personnel.

The projector must be installed in a location with adequate ventilation, at least 50cm from adjacent wall surfaces. Be sure that no ventilation slots are blocked.

Do not project the beam onto inflammable surfaces, minimum distance is 10m.  $\nabla$  10m  $\nabla$

Avoid direct exposure to the light from the lamp. The light is harmful to the eye.

Do not attempt to dismantle and/or modify the projector in any way.

Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the projector.

It is essential that each projector is correctly earthed and that electrical installation conforms to all relevant standards.

Do not connect this device to any other types of dimmer apparatus.

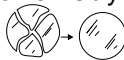
Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.

Keep the lamp clean. Do not touch the lamp glass with bare hand.

Never run the projector without a lamp.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Shields and lens shall be changed if they have become visibly damaged to such an extent than their effectiveness is impaired, for example by cracks or deep scratches.



Exterior surface temperatures of the luminaire after 5 minutes operation is 80°C, when steady state is achieved 120°C,

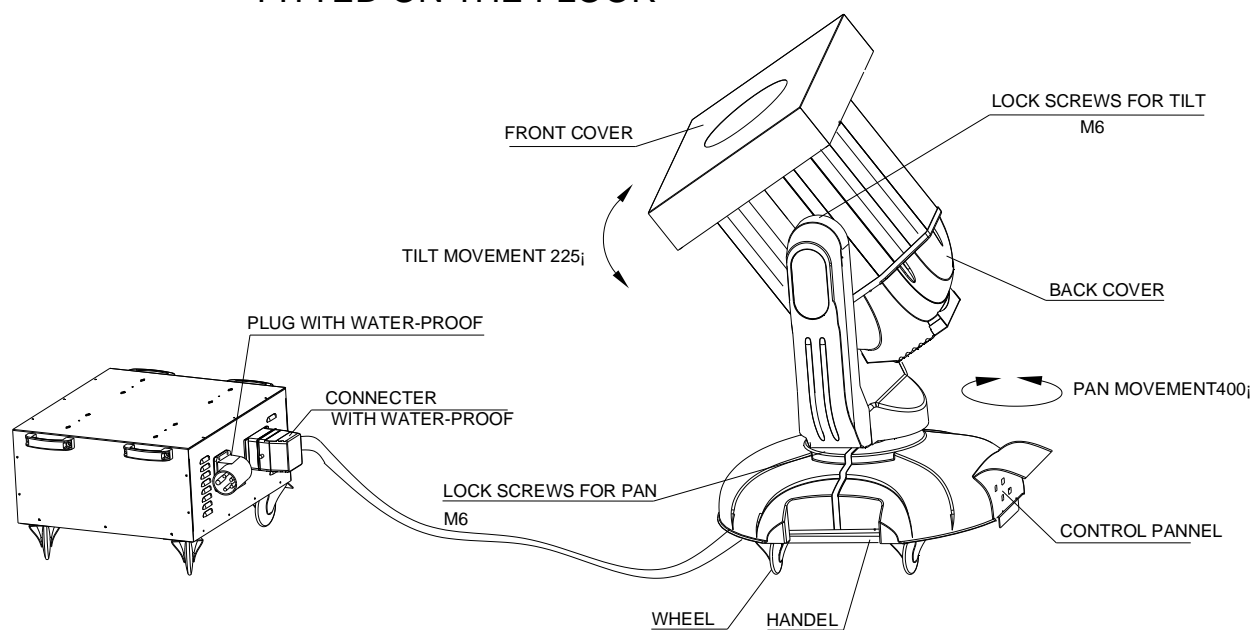
There is no user serviceable parts inside the projector, do not open the housing and never operate the projector with the covers removed.

**Always disconnect from the mains, when the device is not in use or before cleaning it or before attempting any maintenance work !**

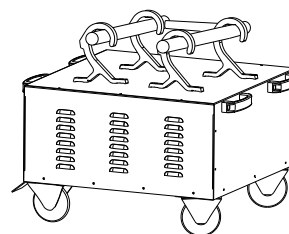
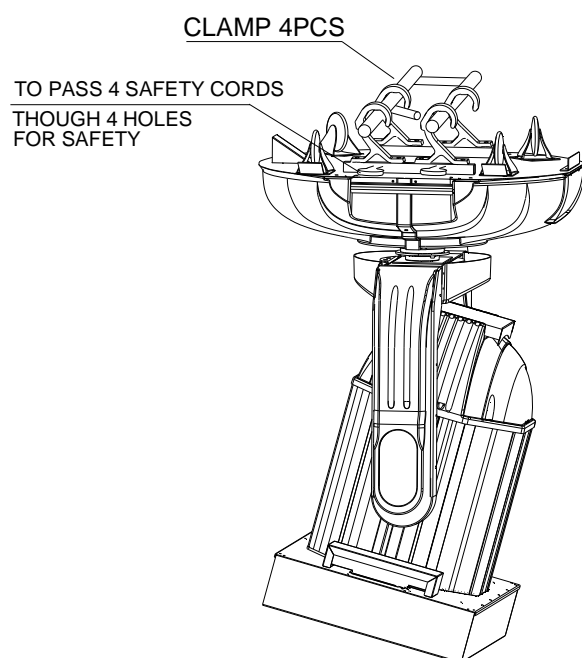
If you have any questions, don't hesitate to consult your dealer or manufacturer.

## INSTALL THE PROJECTOR

### FITTED ON THE FLOOR

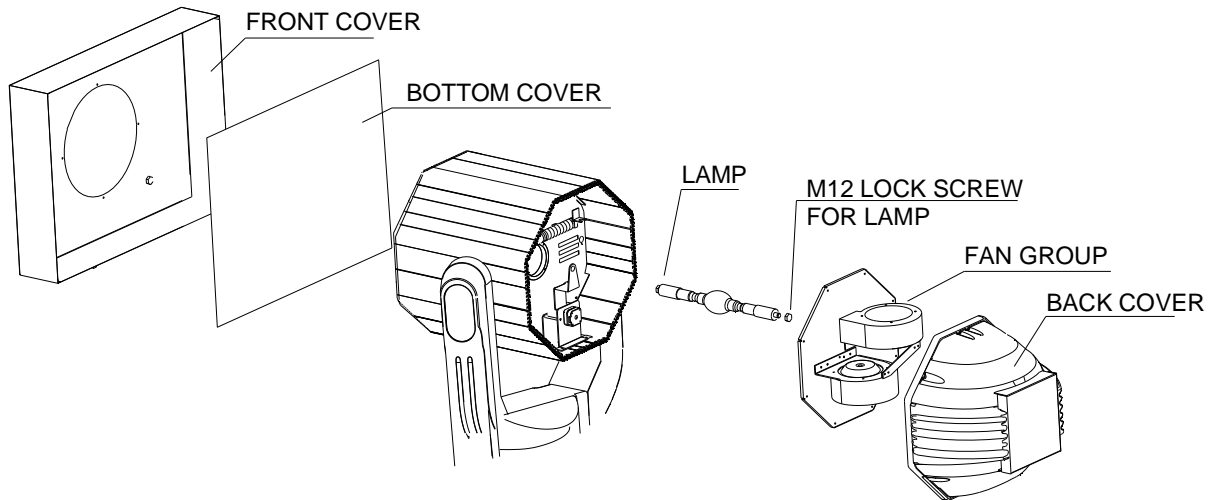


### FITTED ON THE CEILING



**WARNING:** 1. Unlock the lock screws of the PAN and TILT before the 1<sup>st</sup> application of projector for safety.  
2. For safety the safety cord should afford 10 times of the unit's weight.

## FITTING THE LAMP



Remove the front cover and bottom cover of colour changing system by undoing the M4 screws.

Remove back cover and fan group by undoing the 16xM4 screws.

Undo the M12 screw from anode and cathode of the lamp and then pull out the old lamp. (Do not change new lamp until old lamp has cooled).

Insert the new lamp in the lamp-holder, and ensure the little bubble on the lamp is at a right angle (90°) to the beam path. Keep the lamp clean during installation.

Reinstall the front cover and back cover then retighten the screws.

## POWER SUPPLY-MAINS

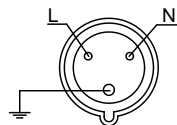
Use the plug provided to connect the mains power to the projector paying attention to the voltage and frequency marked on the panel of the projector. It is recommended that each projector is supplied separately so that they may be individually switched on and off.

**IMPORTANT:** Should any other connections be required they must be carried out with the following configuration.

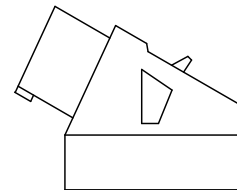
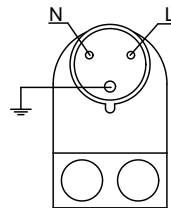
3 - PIN FEMALE PLUG

3 - PIN MALE SOCKET

PR-4100AS  
PR-4100A



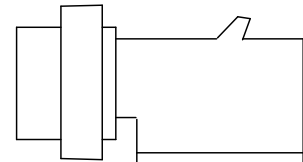
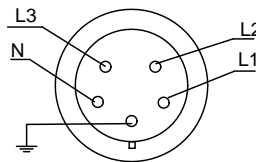
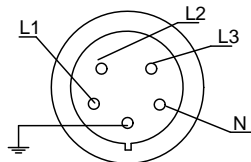
L = PHASE  
N = NEUTRAL  
⏏ = GROUND



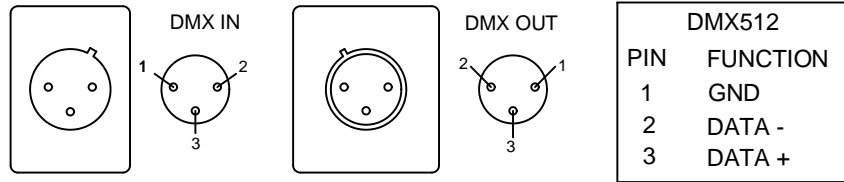
5 - PIN FEMALE PLUG

5 - PIN MALE SOCKET

PR-1700



## CONTROL CONNECTION

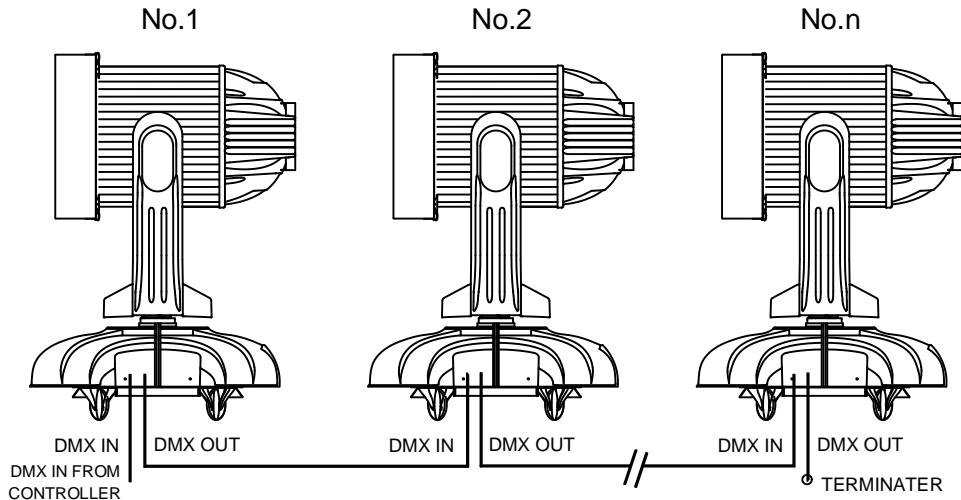


Connection between controller and projector and between one projector and another must be made with a 2 core-screened cable, with each core having at least a 0.5mm diameter. Connection to and from the projector is via cannon 3 pin (which are included with the projector) or 5 pin XLR plugs and sockets. The XLR's are connected as shown in the figure above.

Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. The body of the plug is not connected in any way. The projector accepts digital control signals in protocol DMX512 (1990).

Connect the controller's output to the first fixture's input, and connect the first fixture's output to the second fixture's input and connect the rest fixtures in the same way. Eventually connect the last fixture's output to a DMX terminator as shown in the figure below.

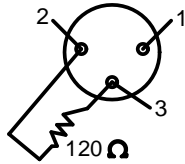
If the green LED is on, it means that the DMX signal is correct.



## DMX TERMINATOR

In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

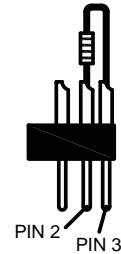
The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.



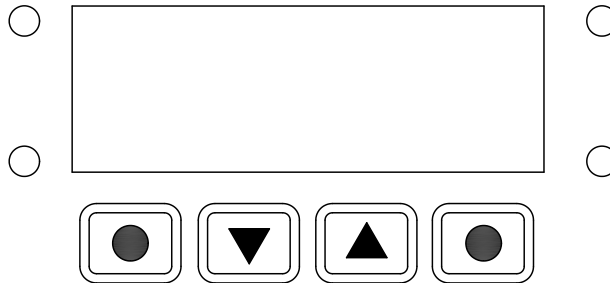
### DMX TERMINATOR

#### CONNECTION

Connect a 120Ω(OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX out socket on the last unit in the chain.



## SETUP OPTIONS-PROJECTOR CONFIGURATION



FUNC DOWN UP ENTER

Projector configuration can be set conveniently via pressbutton switch and LED display. Turn the projector on and the LED display will show DMX address you set and save last time and it can be reset and saved again as you please.

Launch the projector. Press button **ENTER** more than 5 seconds to unlock panel.

Press button **UP** or **DOWN** if you want to browse through the various Setup Options.

Press button **ENTER** to save your settings or enter the next menu.

Press button **UP** or **DOWN** to shift.

Press button **FUNC**, it will return to the upper menu one by one. If you do not, the system will display DMX start address after 60 seconds automatically.

## TO SET THE DMX START ADDRESS

Each unit must be given a DMX start address so that the correct projector responds to the correct control signals. This DMX start address is the channel number from which the projector starts to listen to the digital control information being sent out from the controller. These 3 units have 2 DMX modes. There are standard mode and short mode. For example standard mode has 15 channels, so set the No. 1 projector's address 001, No. 2 projector's address 016, No. 3 projector's address 031, No. 4 projector's address 046, and so on.

Launch the projector. Press button **ENTER** more than 5 seconds to unlock panel.

Press button **FUNC** to display **DMX address**;

Press button **UP** and **DOWN**, you can set the address;

Press button **ENTER** to confirm.

The DMX start address can be set discretionarily under the STAND-ALONE control mode. It is recommended that the DMX start address must be set correctly so that the unit may be individually switched on and off when multi-projectors controlled by controller.

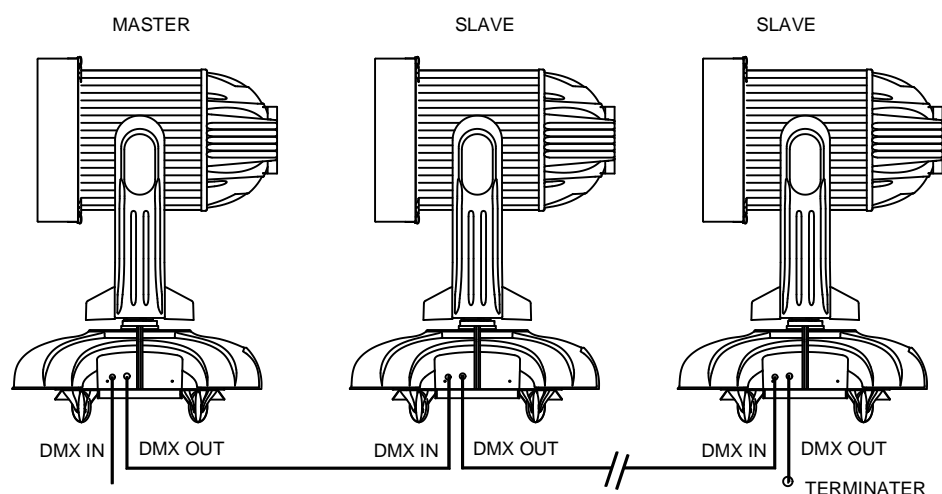
## STAND-ALONE MODE

To operate the projector without connecting a controller, setup options master mode disabled, the projector will run in Stand-Alone mode automatically.

## MASTER/SLAVE MODE

Without using a controller, many projectors can run synchronously in the Master/Slave mode by linking them with each other. Select one projector as the master with setting options master mode enabled but slaves. Regard the other projectors as the slaves with setting options slave mode enabled and all DMX start address ;001;.

Connect the controller;s output to the first fixture;s input, and connect the first fixture;s output to the second fixture;s input and connect the rest fixtures in the same way. Eventually connect the last fixture;s output to a DMX terminator as shown in the figure below.



## LED INDICATION

Green	On	DMX signal OK
	Off	No DMX signal
	Flash	DMX signal error
Yellow	On	Setting the panel
Blue	On	Power
Red/Green	Red	Running Slave mode or self test mode
	Green	Running Master mode
Red	On	The fan is working
	Off	The fan is not working



# OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL	6th LEVEL
PR LIGHTING MEGA 4000a MEGA 4000as MEGA 7000	DMX Address=001				
DMX Address	DMX Address (001-498)				
Reset	Reset Are You Sure?				
Config Settings	DMX Mode	DMX Mode Standard 16			
		DMX Mode Short 8			
	Lamp Control	Lamp Control By Control Channel			
		Lamp Control By Power On			
		Lamp Control By DMX Present			
	Factory Settings (Press button <b>DOWN/UP/ENTER</b> at the same time to enter the sub-menu)	Fixture type ( <b>WARNING: Never change the fixture type or the system will be damaged!</b> )	MEGA COLOUR 4000A		
			MEGA COLOUR 4000AS		
			MEGA COLOUR 7000		
Option Settings	Pan DMX Invert	Pan DMX Invert OFF			
		Pan DMX Invert ON			
	Tilt DMX Invert	Tilt DMX Invert OFF			
		Tilt DMX Invert ON			
	Pan Tilt Swap	Pan Tilt Swap OFF			
		Pan Tilt Swap ON			
	Defaults	Defaults OFF			
		Defaults Restore Defaults			
Display Options	Display Mode	Display On Always			
		Display Off After Delay			
	Display Contrast	Display Contrast XXX(1~32, Default is 1)			
	Display Dimming (Default is 8)	Disp Dim Level Full			

		Disp Dim Level 9			
		Disp Dim Level 8			
		Disp Dim Level 7			
		Disp Dim Level 6			
		Disp Dim Level 5			
		Disp Dim Level 4			
		Disp Dim Level 3			
		Disp Dim Level 2			
		Disp Dim Level 1			
		Disp Dim Level Min			
Information	Lamp Hours	Lamp Hours = XX	Reset Lamp Hours Are You Sure?		
	Total Hours	Total Hours = XX			
	Temperature	Display Board	Display Board = XX°C		
		Driver Board 1	Driver Board 1 = XX °C		
		Pan and Tilt	Pan and Tilt = XX °C		
	Software Version	Display Board	Display Board = X.X.X		
		Driver Board 1	Driver Board 1 = X.X.X		
		Pan and Tilt	Pan and Tilt = X.X.X		
		Power Board	Power Board = X.X.X		
	View DMX Values	DMX Channel			
Test Modes	Factory Setup	Factory Setup Off			
		Factory Setup On			
	Self Test	Self Test Off			
		Self Test On			
Lamp Manual Control	Lamp Status	Status = XX Control= XX			
	Turn Lamp On				
	Turn Lamp Off				
Operation Mode	Mode= DMX512				
	Mode = Master mode	Select Memory User Memory 1			
		Select Memory			

User Memory	Mode = Slave mode	User Memory 2			
		Select Memory Preset Memory 1			
		Select Memory Preset Memory 2			
		Select Memory Preset Memory 3			
		Select Memory User Memory 1			
		Select Memory User Memory 2			
		Select Memory Preset Memory 1			
		Select Memory Preset Memory 2			
		Select Memory Preset Memory 3			
	Mode = Static Scene				
	Edit User Memory	User Memory1	Scene XX (1~28)	Mech Shutter	Mech Shutter XXX(0-255)
				Mech Dimmer	Mech Dimmer XXX(0-255)
				Cyan	Cyan XXX(0-255)
				Yellow	Yellow XXX(0-255)
				Magenta	Magenta XXX(0-255)
				Focus	Focus XXX(0-255)
				Frost	Frost XXX(0-255)
				Elect Dimmer	Elect Dimmer XXX(0-255)
				Elect Strobe	Elect Strobe XXX(0-255)
				Pan High	Pan High XXX (0-255)
				Pan Low	Pan Low XXX (0-255)
				Tilt High	Tilt High XXX (0-255)
				Tilt Low	Tilt Low XXX (0-255)
				M-S peed	M-Speed XXX(0-255)
				Delay	Delay XX Seconds (0.25s~100min)
				Link To Step	Link To Step XXX (1~28)
		User Memory 2	Scene XX (1~28)	Mech Shutter	Mech Shutter XXX(0-255)
				Mech Dimmer	Mech Dimmer XXX(0-255)
				Cyan	Cyan XXX(0-255)
				Yellow	Yellow XXX (0~255)
				Magenta	Magenta XXX (0~255)

			Focus	Focus XXX	
			Frost	Frost XXX	
			Elect Dimmer	Elect Dimmer XXX(0-255)	
			Elect Strobe	Elect Strobe XXX(0-255)	
			Pan High	Pan High XXX	
			Pan Low	Pan Low XXX	
			Tilt High	Tilt High XXX	
			Tilt Low	Tilt Low XXX	
			M-Speed	M-Speed XX(001~255)	
			Delay	Delay XX Seconds (0.25s~100min)	
			Link To Step	Link To Step XXX (1~32)	
	Static Scene	Mech Shutter	Mech Shutter XXX(0-255)		
		Mech Dimmer	Mech Dimmer XXX(0-255)		
		Cyan	Cyan XXX (0~255)		
		Yellow	Yellow XXX (0~255)		
		Magenta	Magenta XXX (0~255)		
		Focus	Focus XXX		
		Frost	Frost XXX		
		Elect Dimmer	Elect Dimmer XXX(0-255)		
		Elect Strobe	Elect Strobe XXX(0-255)		
		Pan High	Pan High XXX		
		Pan Low	Pan Low XXX		
		Tilt High	Tilt High XXX		
		Tilt Low	Tilt Low XXX		
Init User Memory	Reset Static Scene	Reset Static Scn <Unlock> 2 3 & 4			
	Reset User Memory 1	Reset User 1 ? <Unlock> 2 3 & 4			
	Reset User Memory 2	Reset User 2 ? <Unlock> 2 3 & 4			

## DMX PROTOCOL

SHORT MODE	STANDARD MODE	FUNCTION	DMX		DESCRIPTION
1	1	Louvre Shutter	This function is available just only DMX is 010-255 of 2 channels DMX		
			000-009		Black
			010-020		Clear
			021-244		Strobe speed from slow to fast
			245-255		Clear
2	2	Louvre Dimmer	This function is available just only DMX is 010-255 of 1 channels DMX		
			000-009		Black
			010-255		Linear adjust from dark to light
3	3	CYM-Cyan	000-255		Linear adjust from light to dark
4	4	CYM-Yellow	000-255		Linear adjust from light to dark
5	5	CYM-Magenta	C=Y=255	000-127	Linear adjust from light to dark
				128-255	CYM colour mixing Macros from fast to slow
			C≠255 Or Y≠255	000-255	Linear adjust from light to dark
6	6	Frost	000-255		Frost linearly adjustable from 0 to 100%
7	7	Focus	000-255		Linearly adjustable from far to near
8	8	Pan	000-255		Pan rotation 400°
9	9	Tilt	000-255		Tilt rotation 225°
10	10	Strobe	000-010		white
			011-255		From slow to fast
11	11	E-Dimmer	000-255		Linearly adjustable from light to dark
	12	Pan & Tilt Speed	000-255		Pan&Tilt speed from fast to slow
	13	Pan Fine	000-255		Pan rotation in 16 precision
	14	Tilt Fine	000-255		Pan rotation in 16 precision
12	15	Control	000-047		Reserved
			048-080		Reset
			081-112		Reserved
			113-144		Lamp off ( stop in DMX value for 10 s)
			145--223		Reserved
			224-255		Lamp on

## MAINTENANCE

If the projector's lens becomes damaged or broken it should be replaced. If the lamp becomes damaged or deformed in any way it must be replaced. If the light from the lamp appears dim this would normally indicate that it is reaching the end of its life and it should be changed at once, aged lamps run to the extremity of their life might explode. If the projector does not function, check the fuses on the power socket of the projector, they should only be replaced by fuses of the same specification. Should these be damaged call a qualified technician before replacement. The projector has thermal protection device that will switch off the projector in case of overheating, should either of these operate, check that the fans are not blocked, and if they are dirty clean them before switching on the projector again. Check that the fans are operational, if not call a qualified technician.

**Any maintenance work should only be carried out by qualified technicians.**

## KEEPING THE PROJECTOR CLEAN

To ensure the reliability of the projector it should be kept clean. It is recommended that the fans should be cleaned every 15 days. The lens and dichroic colour filters should also be regularly cleaned to maintain an optimum light output. **Do NOT use any type of solvent on dichroic colour filters.**

Cleaning frequency depends on the environment in which the fixture operates: damp, smoke or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics. A soft cloth and typical glass cleaning products should be used in cleaning. It is recommended to clean the external optics at least once every 20 days and clean the internal optics at least once every 30 / 60 days.

**Do not use any organic solvent, e.g. alcohol, to clean the reflector mirror, dichroic colour filters or housing of the apparatus.**

## TROUBLESHOOTING

PROBLEM	ACTION
The projector doesn't switch on	<ul style="list-style-type: none"><li>➤ Check the fuse on the power socket.</li><li>➤ Replace the lamp.</li></ul>
The projector only functions intermittently	<ul style="list-style-type: none"><li>➤ Make sure the fan is working and not dirty.</li></ul>
Defective projection	<ul style="list-style-type: none"><li>➤ Check the lenses are not broken.</li><li>➤ Remove dust or grease from the lenses.</li></ul>
The project image appears to have a halo	<ul style="list-style-type: none"><li>➤ Make sure the lamp is installed correctly.</li><li>➤ Carefully clean the optical group lenses and the projector components.</li></ul>
The beam appears dim	<ul style="list-style-type: none"><li>➤ Check the optics is clean.</li><li>➤ Replace with a new lamp of the specified type and rating.</li></ul>

## TECHNICAL DATA

### VOLTAGES:

PR-4100AS/PR-4100A	220V AC, 50/60Hz
PR-1700	380/400V AC, 50Hz

### POWER CONSUMPTION:

PR-4100AS/PR-4100A	6050W@220V
PR-1700	8500W@380V

### LAMP:

PR-4100AS/PR-4100A	XQ4000
Colour Temperature	6000° K
Socket	Anode SFa27-14, Cathode SFc27-14, double end
Manufacturers Rated Lamp Life	600 hours
PR-1700	XQ7000
Colour Temperature	6000° K
Socket	Anode SFa27-14, Cathode SFc27-14, double end
Manufacturers Rated Lamp Life	300 hours

### COLOURS:

Smooth CYM colour mixing system with macros

### PRISM/ FROST:

linearly adjustable 0-100%

### DIMMER:

Louvre dimmer linearly adjustable 0-100%  
Electrical dimmer linearly adjustable 50-100%

### FOCUS

DMX controlled focus

### SHUTTER:

Louvre shutter 0.3~12 F.P.S  
Electrical shutter 1~17 F.P.S

### HEAD MOVEMENT:

Pan 400°, Tilt 225° with auto position correction

**BEAM ANGLE:**

Parallel beam 0° ~25° adjustable

**CONTROL:**

DMX512 , 3 pin, 5 pin interfaces

12 channels in short mode, 15 channels in standard mode

Master/Slave mode

Stand-alone mode

Self-test mode

**OTHER FUNCTIONS:**

Programmable functions

Adjustable Pan & Tilt speed

Show temperature of PCB

Fixture and lamp usage time display

Overheating protection device

Adjustable brightness and contrast of LCD display

**HOUSING:**

High strength aluminium alloy and industrial plastic and composite plastic, IP55

**WEIGHT:**

PR-4100AS

Body	109Kg
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Box	30Kg
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PR-4100A

128Kg
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PR-1700

Body	107Kg
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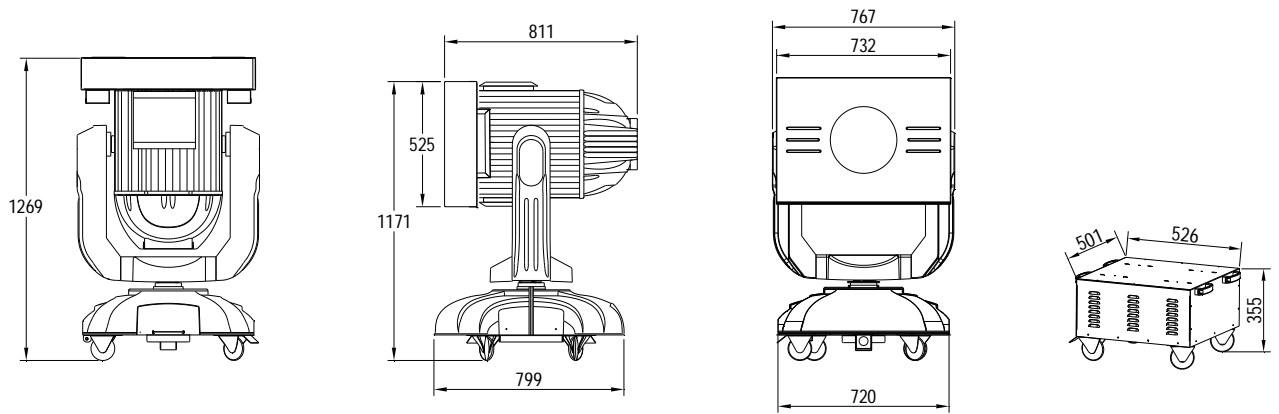
Box	33Kg
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**SIZES:**

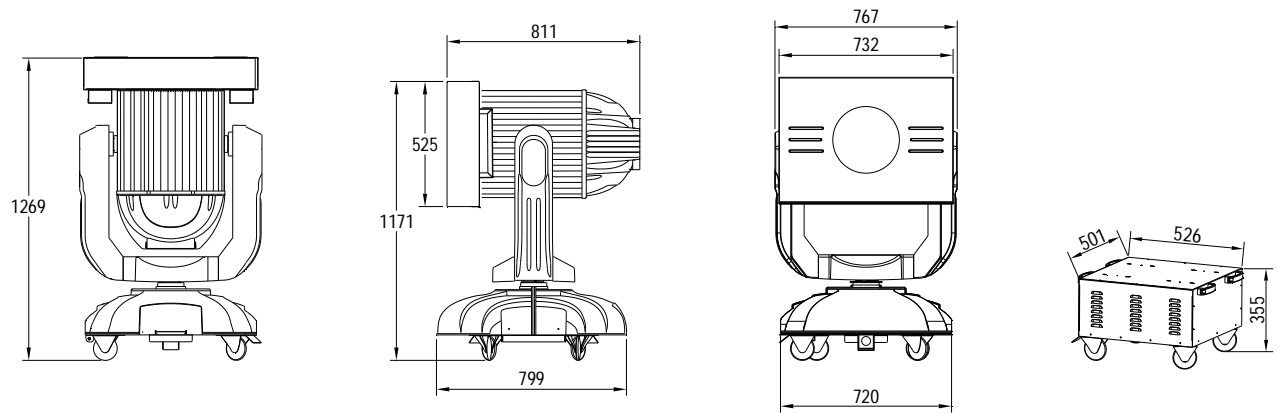
See at below



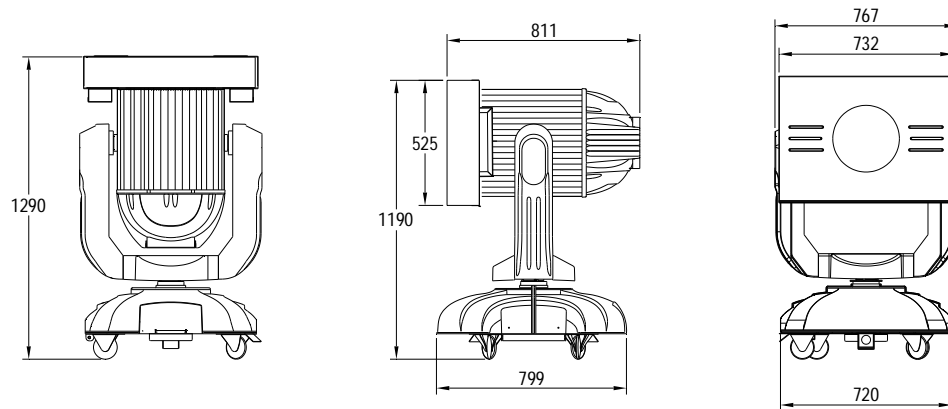
PR-1700



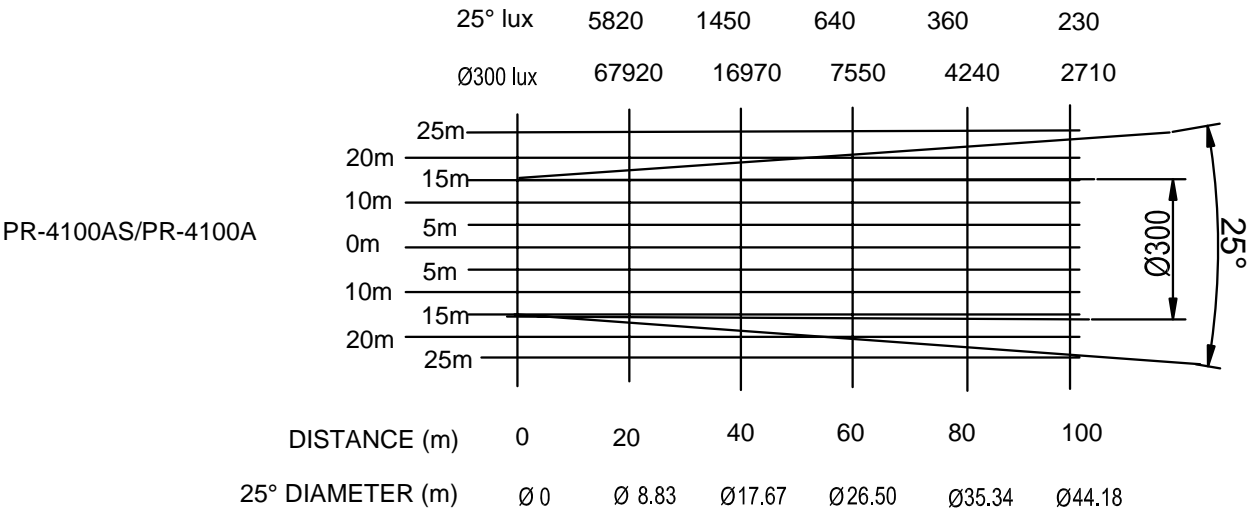
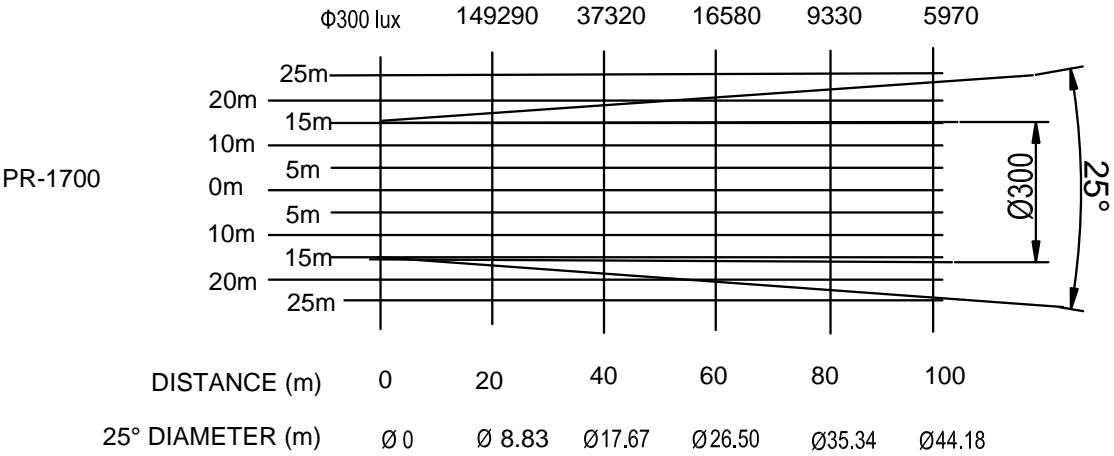
PR-4100AS

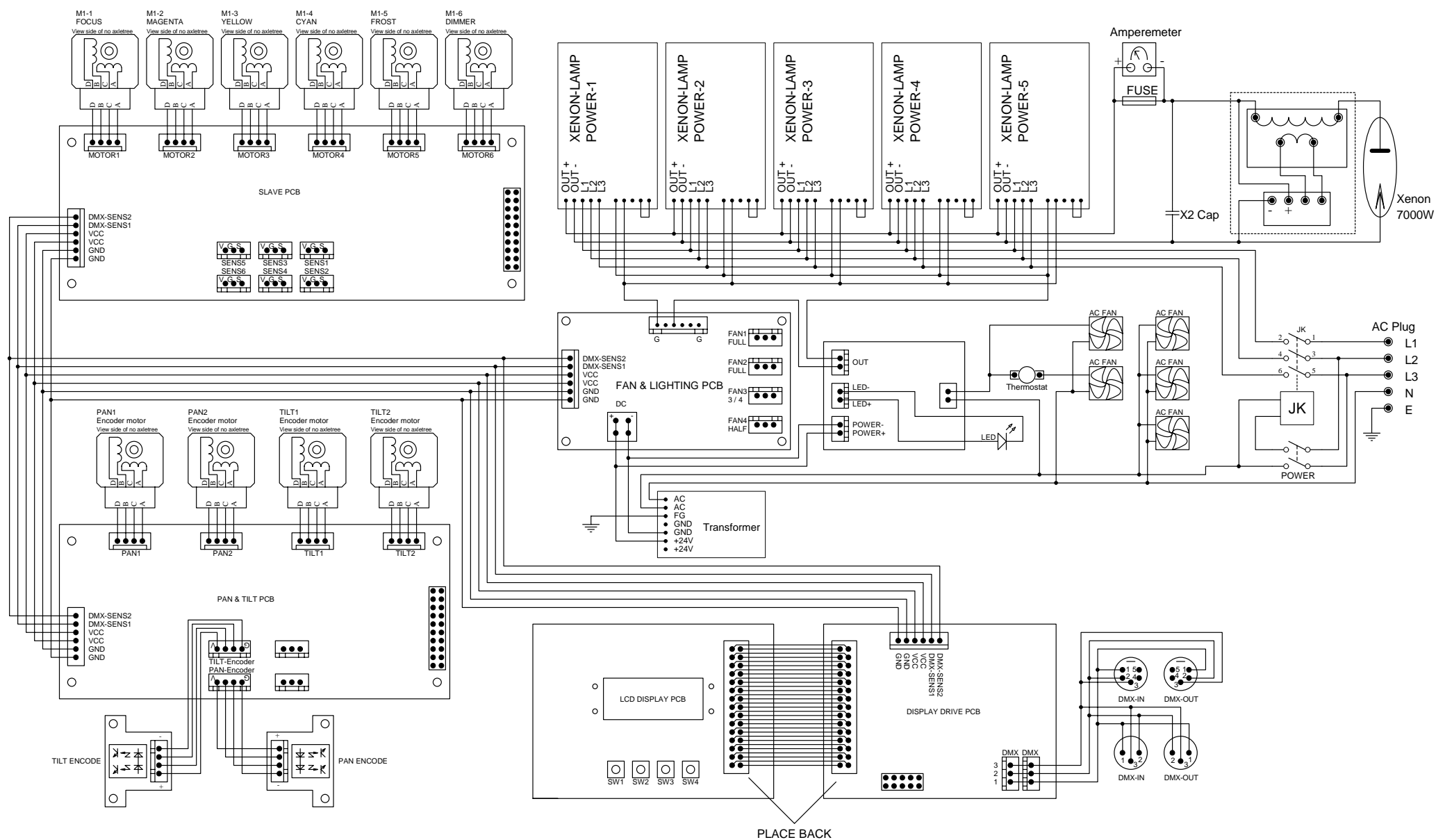


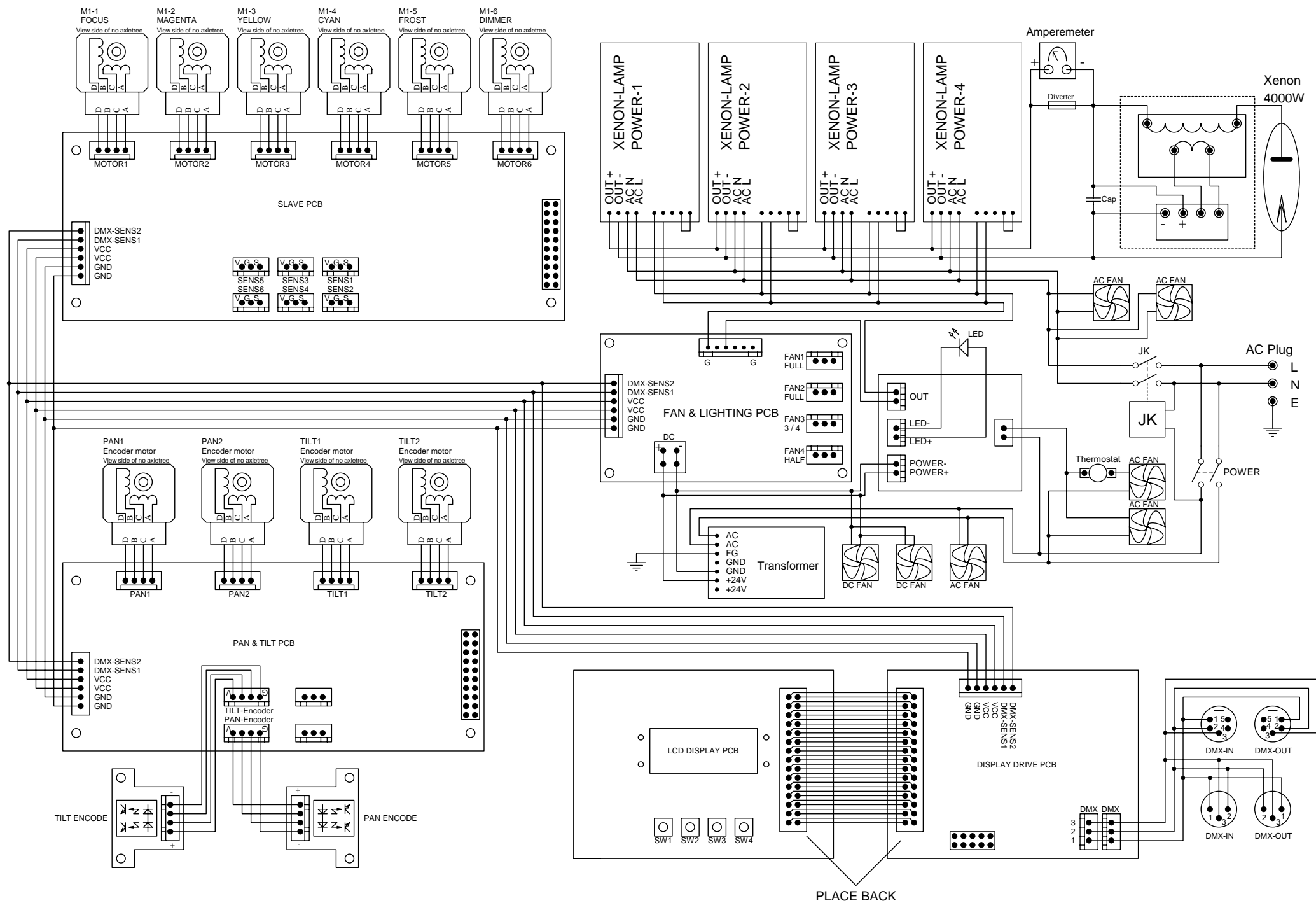
PR-4100A

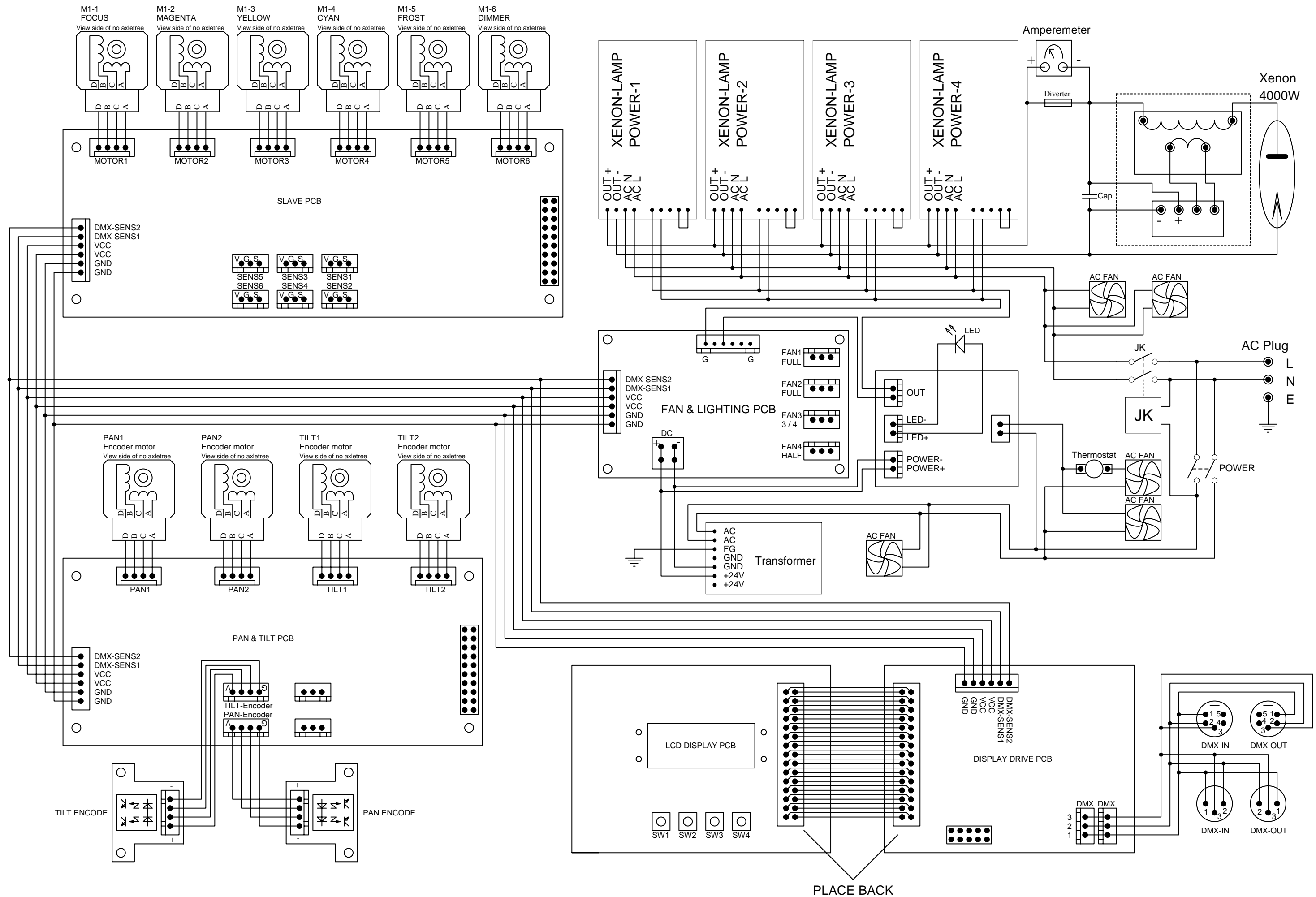


**LIGHT OUTPUT:**









## COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
POWER SUPPLY	192010128	1	SKFB-100-1B
IGNITOR FOR LAMP	230050005	1	1000W~10000W
POWER SUPPLY FOR LAMP	390120053	5	1500W
POWER SUPPLY FOR LAMP ****	390120054	4	220V 1000W
RELAY****	192010028	1	CA2-DN40 M7C 220V 50/60Hz
RELAY	192010200	1	CJX1-32
DIVERTER	270041069	1	200A
DIVERTER	270041039	1	150A
THERMOSTAT	190010071	1	250V-16A 110°C
TILT DRIVE BELT	290151240	2	HTD-537-3M
PAN DRIVE BELT	290151242	1	HTD-750-3M*10MM
FAN	030060013	3	AC220V/0.14A
FAN IN REAR COVER	030060032	2	AC 220V/85W
FAN IN BASE	030060022	1	120*120 230V/22W
LAMP	100060010	1	XQ7000W
LAMP****	100060009	1	XQ4000W
CYM-CYAN	090100053	2	
CYM-YELLOW	090100054	2	
CYM-MAGENTA	090100055	2	
PAN/TILT MOTOR	030040130	4	23HS3030
CYM/FROST MOTOR	030040134	4	17HS1013-10L 5*69
FOCUS MOTOR	030040085	1	17HS0002-61L 5*12.5
PAN/TILT DRIVE PCB	230020235	1	
MOTOR DRIVE PCB	230020234	1	
DISPLAY DRIVE PCB	230020233A	1	
POWER PCB	230020232A	1	

**NOTE:**

\*\*\*\* Only apply to PR-4100A/PR-4100AS.



PR LIGHTING LTD.

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1582 Xingye Avenue, Nancun Panyu  
Guangzhou, 511442 China  
TEL: +86-20-3995 2888  
FAX: +86-20-3995 2330

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P/N: 320040008  
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